* NOTICES *

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2.**** shows the word which can not be translated.
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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application]This invention relates to electrophotography devices, such as a laser beam printer and an electronic copying machine.
[0002]
[Description of the Prior Art]The electrophotography device is widely used as a thing indispensable to office automation in the administration building etc. The electrophotography device is constituted including the device main frame 1, the image support 5, the electrifying device 6, the development counter 7, the transfer machine 8, and the fixing assembly 9 grade, as shown in drawing 5.
[0003]As for the image support 5 (for example, photo conductor drum), the surface is covered by the photosensitive layer.
After the surface concerned is uniformly charged by the electrifying device 6 at the time of printing, the exposure of a laser beam based on printing data is exposed, and an electrostatic latent image is formed.
After the electrostatic latent image formed in this image support 5 is developed by the development counter 7, the transfer machine 8 and the fixing assembly 9 are transferred and established on the paper P. The developer which remained to the image support 5 is removed by the cleaning unit 11 after transfer. The residual charge on the image support 5 after transfer is discharged by the charge neutralizer 12 in preparation for the following electrification.
[0004]As shown in drawing 6, in order to carry out external discharge of the ozone etc. which were generated at the time of printing, it is common to the device main frame 1 that the fan 15 is allocated.
[0005]
[Problem(s) to be Solved by the Invention]By the way, in the above-mentioned

electrophotography device, during printing, the outdoor daylight L, such as direct sunlight, invades in the device main frame 1 from an opening (for example, fan opening 16), and it is reflected by the inner surface (for example, rear face 4 of the upper cover 3) of the main part 1 concerned, etc., and may enter into the image support 5. When this situation occurs, the image support 5 surface will be exposed by the outdoor daylight L, and a black stripe may appear on the transfer paper P by it. If the outdoor daylight L enters on the image support 5 surface during a stop, it will become a cause which brings degradation forward.

[0006]Then, although it forbids using an electrophotography device under the situation where the outdoor daylight L, such as direct sunlight, was irradiated with the user's manual etc., it may be installed in a place by the window with many opportunities exposed to direct sunlight the indoor space of an administration building, and on account of a layout.

[0007]The purpose of this invention is to provide the electrophotography device which can print with sufficient quality and does not bring degradation of image support forward even if it uses it under the situation where outdoor daylight, such as direct sunlight, was irradiated, in view of the above-mentioned situation.

[0008]

[Means for Solving the Problem]A light cutoff part which prevents that the outdoor daylight concerned reflects an electrophotography device concerning this invention in a portion into which outdoor daylight which invaded in a device main frame via an opening enters in an electrophotography device with which image support which covered the surface by a photosensitive layer was allocated in a device main frame towards image support was provided.

[0009]

[Function]In this invention by the above-mentioned composition, even if outdoor daylight, such as direct sunlight, invades in a device main frame via an opening, reflecting towards image support by the light cutoff part provided in the incidence portion is prevented. Therefore, image support is not exposed by outdoor daylight and a black stripe etc. do not go into a transfer paper at the time of printing. Degradation of image support is not brought forward.

[0010]As mentioned above, it becomes, without being able to print with sufficient quality and bringing degradation of image support forward, even if it uses it under the situation where outdoor daylight, such as direct sunlight, was irradiated.

[0011]

[Example]The example of this invention is described with reference to drawings. It is supposed that the fundamental composition (the device main frame 1, the image support 5 and the electrifying device that is not illustrated, a development counter, a transfer machine, a fixing assembly, etc.) of this electrophotography device is the same as that of the former, It has composition which formed the light cutoff part 21 which prevents that the outdoor daylight L

concerned reflects in the portion into which the outdoor daylight L, such as direct sunlight which invaded in the device main frame 1 via the opening of fan opening 16 grade, enters towards the image support 5.

[0012]Here, the device main frame 1 is formed from the lower cover 2 and the upper cover 3. In the main part 1 concerned, the image support 5, the electrifying device which is not illustrated, the development counter, the transfer machine, the fixing assembly, etc. are provided with position relations.

The image support 5 is formed in the shape of a whole drum.

The surface is covered by the photosensitive layer.

The fan 15 for carrying out external discharge of the ozone etc. which were generated at the time of printing is attached to the device main frame 1. The device main frame 1 is equipped with the paper cassette (graphic display abbreviation), enabling free attachment and detachment. The delivery unit (graphic display abbreviation) for carrying out external discharge of the printed paper is formed in the device main frame 1.

[0013]In this example, as shown in drawing 1 and drawing 2, the light cutoff part 21 is formed from the light absorption member (22) stuck on rear-face 4 portion of the upper cover 3 in which the outdoor daylight L, such as direct sunlight which invaded in the device main frame 1 via the fan opening 16, enters. As a light absorption member, the black chloridation vinyl sheet 22 (this example Mitsubishi Plastics Industries BINIHOIRU C-850-AB) is selected. This chloridation vinyl sheet 22 is stuck on the outdoor daylight incidence portion on the rear face 4 of an upper cover with the double-sided tape. In practice, the sticking position of the chloridation vinyl sheet 22 is guessed and determined as the image support 5 from the place where outdoor daylight hit and the slit position of the fan opening 16, and an angle.

[0014]Next, an operation of this example is explained. Even if the outdoor daylight L, such as direct sunlight, invades in the device main frame 1 via the fan opening 16, it is absorbed with the chloridation vinyl sheet 22 stuck on the incidence portion 4, i.e., the rear face of the upper cover 3, and is not reflected towards the image support 5. Therefore, the image support 5 is not exposed by the outdoor daylight L, and a black stripe etc. do not go into a transfer paper at the time of printing. Degradation of the image support 5 is not brought forward.

[0015]Here, the result in which it experimented about the existence of generating of the black stripe when not providing with the case where the light cutoff part 21 is formed in the incidence portion (rear face 4 of the upper cover 3) of direct sunlight (conventional example) (when the chloridation vinyl sheet 22 is stuck) is shown in drawing 3. The used models A and B are two sorts of typical laser beam printers generally used.

[0016]When the chloridation vinyl sheet 22 was not stuck and the direct sunlight of 15000 - 20000Lux (lux) shone upon the upper cover rear face 4, the black stripe occurred on the transfer paper. On the other hand, when the chloridation vinyl sheet 22 was stuck, the black

stripe was not generated even if the direct sunlight of 37000 - 40000Lux hit.

[0017]Since the deer was carried out, and it had composition which stuck the chloridation vinyl sheet 22 which is a light absorption member on the upper cover rear face 4 into which the outdoor daylight L, such as direct sunlight which invaded in the device main frame 1 via the fan opening 8, enters according to this example, Even if it uses this electrophotography device under the situation where the outdoor daylight L was irradiated, without making it generate, a black stripe etc. can be printed with sufficient quality, and do not bring degradation of the image support 5 forward.

[0018]Since the light cutoff part 21 was formed by sticking the chloridation vinyl sheet 22 on the rear face 4 of the upper cover 3, structure is complicated and is not enlarged. It does not become a high cost. By changing the sticking position of the chloridation vinyl sheet 22 suitably, change of an operating condition can be coped with and expansion of adaptability is achieved.

[0019]In the above-mentioned example, although the light cutoff part 21 was formed from the chloridation vinyl sheet 22 as a light absorption member, As shown in drawing 4, it may form so that the outdoor daylight L, such as direct sunlight which entered by carrying out crimp processing of the rear face 4 of the upper cover 3, and considering it as the letter of unevenness, may be scattered and it may not reflect towards the image support 5.

[0020]Although the light absorption member was formed from the chloridation vinyl sheet 22, it is not limited to this and may form from the black paint applied to the rear face 4 of the upper cover 3, for example.

[0021]Although the light cutoff part 21 was formed in the rear face 4 of the upper cover 3, a setting position is not limited to this and established in the portion into which the outdoor daylight which invades from the openings (the crevice between the fan opening 16 and a paper cassette applied part, the crevice between delivery units, etc.) of the device main frame 1 enters.

[0022]

[Effect of the Invention]In this invention, it had composition which provided the light cutoff part which prevents that the outdoor daylight concerned reflects in the portion into which the outdoor daylight which invaded in the device main frame via the opening enters towards image support.

Therefore, even if it uses it under the situation where outdoor daylight was irradiated, without making it generate, a black stripe etc. can be printed with sufficient quality, and do not bring degradation of image support forward.
